

## Review– Naming Chemical Compounds

The following are a good mix of naming and formula writing problems to help you get some practice.

*Name the following chemical compounds:*

- 1) NaBr \_\_\_\_\_
- 2)  $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$  \_\_\_\_\_
- 3)  $\text{P}_2\text{O}_5$  \_\_\_\_\_
- 4)  $\text{Ti}(\text{SO}_4)_2$  \_\_\_\_\_
- 5)  $\text{FePO}_4$  \_\_\_\_\_
- 6)  $\text{K}_3\text{N}$  \_\_\_\_\_
- 7)  $\text{SO}_2$  \_\_\_\_\_
- 8)  $\text{CuOH}$  \_\_\_\_\_
- 9)  $\text{Zn}(\text{NO}_2)_2$  \_\_\_\_\_
- 10)  $\text{V}_2\text{S}_3$  \_\_\_\_\_

*Write the formulas for the following chemical compounds:*

- 11) silicon dioxide \_\_\_\_\_
- 12) nickel (III) sulfide \_\_\_\_\_
- 13) manganese (II) phosphate \_\_\_\_\_
- 14) silver acetate \_\_\_\_\_
- 15) diboron tetrabromide \_\_\_\_\_
- 16) magnesium sulfate heptahydrate \_\_\_\_\_
- 17) potassium carbonate \_\_\_\_\_
- 18) ammonium oxide \_\_\_\_\_
- 19) tin (IV) selenide \_\_\_\_\_
- 20) carbon tetrachloride \_\_\_\_\_

## Answers – Naming Chemical Compounds

*Name the following chemical compounds:*

- |     |  |                        |
|-----|--|------------------------|
| 1)  | NaBr   | sodium bromide         |
| 2)  | Ca(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>2</sub> | calcium acetate        |
| 3)  | P <sub>2</sub> O <sub>5</sub>                                  | diphosphorus pentoxide |
| 4)  | Ti(SO <sub>4</sub> ) <sub>2</sub>                              | titanium(IV) sulfate   |
| 5)  | FePO <sub>4</sub>  | iron(III) phosphate    |
| 6)  | K <sub>3</sub> N   | potassium nitride      |
| 7)  | SO <sub>2</sub>  | sulfur dioxide         |
| 8)  | CuOH   | copper(I) hydroxide    |
| 9)  | Zn(NO <sub>2</sub> ) <sub>2</sub>                              | zinc nitrite           |
| 10) | V <sub>2</sub> S <sub>3</sub>                                  | vanadium(III) sulfide  |

*Write the formulas for the following chemical compounds:*

- |     |                                |   |
|-----|--------------------------------|---|
| 11) | silicon dioxide                | SiO <sub>2</sub>                                |
| 12) | nickel (III) sulfide           | Ni <sub>2</sub> S <sub>3</sub>                  |
| 13) | manganese (II) phosphate       | Mn <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> |
| 14) | silver acetate                 | AgC <sub>2</sub> H <sub>3</sub> O <sub>2</sub>  |
| 15) | diboron tetrabromide           | B <sub>2</sub> Br <sub>4</sub>                  |
| 16) | magnesium sulfate heptahydrate | MgSO <sub>4</sub> ·7H <sub>2</sub> O            |
| 17) | potassium carbonate            | K <sub>2</sub> CO <sub>3</sub>                  |
| 18) | ammonium oxide                 | (NH <sub>4</sub> ) <sub>2</sub> O               |
| 19) | tin (IV) selenide              | SnSe <sub>2</sub>                               |
| 20) | carbon tetrachloride           | CCl <sub>4</sub>                                |

## **(Still) More Naming Practice**

*Write the names of the following chemical compounds:*

- 1)  $\text{BBr}_3$  \_\_\_\_\_
- 2)  $\text{CaSO}_4$  \_\_\_\_\_
- 3)  $\text{C}_2\text{Br}_6$  \_\_\_\_\_
- 4)  $\text{Cr}(\text{CO}_3)_3$  \_\_\_\_\_
- 5)  $\text{Ag}_3\text{P}$  \_\_\_\_\_
- 6)  $\text{IO}_2$  \_\_\_\_\_
- 7)  $\text{VO}_2$  \_\_\_\_\_
- 8)  $\text{PbS}$  \_\_\_\_\_
- 9)  $\text{CH}_4$  \_\_\_\_\_
- 10)  $\text{N}_2\text{O}_3$  \_\_\_\_\_

*Write the formulas of the following chemical compounds:*

- 11) tetraphosphorus triselenide \_\_\_\_\_
- 12) potassium acetate \_\_\_\_\_
- 13) iron (II) phosphide \_\_\_\_\_
- 14) disilicon hexabromide \_\_\_\_\_
- 15) titanium (IV) nitrate \_\_\_\_\_
- 16) diselenium diiodide \_\_\_\_\_
- 17) copper (I) phosphate \_\_\_\_\_
- 18) gallium oxide \_\_\_\_\_
- 19) tetrasulfur dinitride \_\_\_\_\_
- 20) phosphorus \_\_\_\_\_

## **(Still) More Naming Practice - Answers**

*Write the names of the following chemical compounds:*

- |     |                            |                                |
|-----|----------------------------|--------------------------------|
| 1)  | $\text{BBr}_3$             | <b>boron tribromide</b>        |
| 2)  | $\text{CaSO}_4$            | <b>calcium sulfate</b>         |
| 3)  | $\text{C}_2\text{Br}_6$    | <b>dicarbon hexabromide</b>    |
| 4)  | $\text{Cr}(\text{CO}_3)_3$ | <b>chromium (VI) carbonate</b> |
| 5)  | $\text{Ag}_3\text{P}$      | <b>silver phosphide</b>        |
| 6)  | $\text{IO}_2$              | <b>iodine dioxide</b>          |
| 7)  | $\text{VO}_2$              | <b>vanadium (IV) oxide</b>     |
| 8)  | $\text{PbS}$               | <b>lead (II) sulfide</b>       |
| 9)  | $\text{CH}_4$              | <b>methane</b>                 |
| 10) | $\text{N}_2\text{O}_3$     | <b>dinitrogen trioxide</b>     |

*Write the formulas of the following chemical compounds:*

- |     |                             |   |
|-----|-----------------------------|---|
| 11) | tetraphosphorus triselenide | <b><math>\text{P}_4\text{Se}_3</math></b>           |
| 12) | potassium acetate           | <b><math>\text{KC}_2\text{H}_3\text{O}_2</math></b> |
| 13) | iron (II) phosphide         | <b><math>\text{Fe}_3\text{P}_2</math></b>           |
| 14) | disilicon hexabromide       | <b><math>\text{Si}_2\text{Br}_6</math></b>          |
| 15) | titanium (IV) nitrate       | <b><math>\text{Ti}(\text{NO}_3)_4</math></b>        |
| 16) | diselenium diiodide         | <b><math>\text{Se}_2\text{I}_2</math></b>           |
| 17) | copper (I) phosphate        | <b><math>\text{Cu}_3\text{PO}_4</math></b>          |
| 18) | gallium oxide               | <b><math>\text{Ga}_2\text{O}_3</math></b>           |
| 19) | tetrasulfur dinitride       | <b><math>\text{S}_4\text{N}_2</math></b>            |
| 20) | phosphorus                  | <b><math>\text{P}_4</math></b>                      |

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Balancing Equations

Balance the following chemical equations.

1. \_\_\_\_\_ Fe + \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub> → \_\_\_\_\_ Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> + \_\_\_\_\_ H<sub>2</sub>
2. \_\_\_\_\_ C<sub>2</sub>H<sub>6</sub> + \_\_\_\_\_ O<sub>2</sub> → \_\_\_\_\_ H<sub>2</sub>O + \_\_\_\_\_ CO<sub>2</sub>
3. \_\_\_\_\_ KOH + \_\_\_\_\_ H<sub>3</sub>PO<sub>4</sub> → \_\_\_\_\_ K<sub>3</sub>PO<sub>4</sub> + \_\_\_\_\_ H<sub>2</sub>O
4. \_\_\_\_\_ SnO<sub>2</sub> + \_\_\_\_\_ H<sub>2</sub> → \_\_\_\_\_ Sn + \_\_\_\_\_ H<sub>2</sub>O
5. \_\_\_\_\_ NH<sub>3</sub> + \_\_\_\_\_ O<sub>2</sub> → \_\_\_\_\_ NO + \_\_\_\_\_ H<sub>2</sub>O
6. \_\_\_\_\_ KNO<sub>3</sub> + \_\_\_\_\_ H<sub>2</sub>CO<sub>3</sub> → \_\_\_\_\_ K<sub>2</sub>CO<sub>3</sub> + \_\_\_\_\_ HNO<sub>3</sub>
7. \_\_\_\_\_ B<sub>2</sub>Br<sub>6</sub> + \_\_\_\_\_ HNO<sub>3</sub> → \_\_\_\_\_ B(NO<sub>3</sub>)<sub>3</sub> + \_\_\_\_\_ HBr
8. \_\_\_\_\_ BF<sub>3</sub> + \_\_\_\_\_ Li<sub>2</sub>SO<sub>3</sub> → \_\_\_\_\_ B<sub>2</sub>(SO<sub>3</sub>)<sub>3</sub> + \_\_\_\_\_ LiF
9. \_\_\_\_\_ (NH<sub>4</sub>)<sub>3</sub>PO<sub>4</sub> + \_\_\_\_\_ Pb(NO<sub>3</sub>)<sub>4</sub> → \_\_\_\_\_ Pb<sub>3</sub>(PO<sub>4</sub>)<sub>4</sub> + \_\_\_\_\_ NH<sub>4</sub>NO<sub>3</sub>
10. \_\_\_\_\_ SeCl<sub>6</sub> + \_\_\_\_\_ O<sub>2</sub> → \_\_\_\_\_ SeO<sub>2</sub> + \_\_\_\_\_ Cl<sub>2</sub>

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Balancing Equations

Balance the following chemical equations.

1. 2 Fe + 3 H<sub>2</sub>SO<sub>4</sub> → 1 Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> + 3 H<sub>2</sub>
2. 2 C<sub>2</sub>H<sub>6</sub> + 7 O<sub>2</sub> → 6 H<sub>2</sub>O + 4 CO<sub>2</sub>
3. 3 KOH + 1 H<sub>3</sub>PO<sub>4</sub> → 1 K<sub>3</sub>PO<sub>4</sub> + 3 H<sub>2</sub>O
4. 1 SnO<sub>2</sub> + 2 H<sub>2</sub> → 1 Sn + 2 H<sub>2</sub>O
5. 4 NH<sub>3</sub> + 5 O<sub>2</sub> → 4 NO + 6 H<sub>2</sub>O
6. 2 KNO<sub>3</sub> + 1 H<sub>2</sub>CO<sub>3</sub> → 1 K<sub>2</sub>CO<sub>3</sub> + 2 HNO<sub>3</sub>
7. 1 B<sub>2</sub>Br<sub>6</sub> + 6 HNO<sub>3</sub> → 2 B(NO<sub>3</sub>)<sub>3</sub> + 6 HBr
8. 2 BF<sub>3</sub> + 3 Li<sub>2</sub>SO<sub>3</sub> → 1 B<sub>2</sub>(SO<sub>3</sub>)<sub>3</sub> + 6 LiF
9. 4 (NH<sub>4</sub>)<sub>3</sub>PO<sub>4</sub> + 3 Pb(NO<sub>3</sub>)<sub>4</sub> → 1 Pb<sub>3</sub>(PO<sub>4</sub>)<sub>4</sub> + 12 NH<sub>4</sub>NO<sub>3</sub>
10. 1 SeCl<sub>6</sub> + 1 O<sub>2</sub> → 1 SeO<sub>2</sub> + 3 Cl<sub>2</sub>